



October 7, 2004

EPA Region 5 Records Ctr.



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**Via Electronic Mail and Certified Mail
Return Receipt Requested**

Mr. Kevin Adler, Remedial Project Coordinator
U.S. Environmental Protection Agency, Region 5
Office of Superfund, Remedial & Enforcement Response Branch
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Subject: Granville Solvents Site Removal Action Quarterly Report – Third Quarter 2004

Dear Mr. Adler:

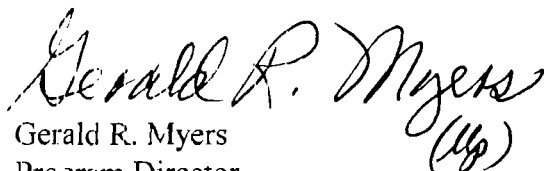
On behalf of the Granville Solvents Site PRP Group, Metcalf & Eddy of Ohio, Inc. respectfully submits the Quarterly Report for the Removal Action at the Granville Solvents Site. Copies have been sent to the following individuals:

Mr. Steve Acree, U.S. EPA (2 copies)
Mr. Peter Felitti, U.S. EPA (cover letter)
Mr. Fred Myers, Ohio EPA (1 copy)
Mr. Joe Hickman, Manager, Village of Granville (1 copy)

If you have questions regarding this submittal, please contact me at (614) 890-5501.

Respectfully,

METCALF & EDDY OF OHIO, INC.


Gerald R. Myers
Program Director

cc: B. Pfefferle, Baker & Hostetler – Steering Committee Chairman
W. Brewer, Duke University – Technical Committee Chairman

**GRANVILLE SOLVENTS SITE
REMOVAL ACTION QUARTERLY REPORT
FOR JULY, AUGUST and SEPTEMBER 2004**

OCTOBER 2004

Pursuant to the requirement set forth in the Administrative Order by Consent (AOC, August 7, 1994) between the U.S. EPA and the Granville Solvents Site (GSS) Potentially Responsible Parties (PRP) Group, in Section 2.5-Reporting, and the letter, dated February 14, 1996, from Ms. Diane Spencer (U.S. EPA), this report constitutes the quarterly written progress report concerning actions undertaken pursuant to the AOC.

I. PROGRESS MADE DURING REPORTING PERIOD

Source Area Groundwater Control

The groundwater pumping and treatment system operated 736 hours in July, 744 hours in August, and 720 hours in September, for a total of 2,200 hours during the third quarter of 2004. Since operation of the treatment system began in December 1994, the system has operated 98.9% of the available time.

The treatment system processed approximately 10.6 million gallons of water in July, 11.3 million gallons of water in August, and 10.6 million gallons of water in September, for a total of 32.6 million gallons of water for the third quarter of 2004. Since operation began in December 1994, more than 1.2 billion gallons of groundwater (1,220,110,000 gallons) have been extracted and treated.

During the third quarter of 2004, M&E collected monthly air pressure measurements in the air-stripping unit's exhaust to calculate airflow values. The measured airflow was 1,700 cfm in July, 2,000 cfm in August and 1,620 cfm in September.

M&E continued to perform scheduled monthly maintenance on the treatment system to ensure that the system is performing at maximum efficiency and to decrease unscheduled downtime. Maintenance included replacing bag filters, lubricating the transfer pump and blower motors, checking flow meters and level sensors, and performing acid washing of the treatment system.

Water samples were collected from the system's influent and effluent sampling ports on July 15, August 24 and August 31 (due to scheduling issues, the sample for September was collected on the last day of August). The analytical results are presented in Table 1.

Well GSS-EW2 was operated at an average flow rate of approximately 259 gpm during the third quarter of 2004. As expected, due the pumping of Village well PW-2, the groundwater divide, as shown in Figure 1, has moved to the east of the location that was presented in the second quarter 2004 report. This location, however, corresponds to the "worst-case" divide that was predicted

in the January 31, 2004 letter to U.S. EPA, which demonstrated that even under continuous pumping by PW-2, extraction well EW-2 would be able to capture impacted groundwater. The divide is expected to migrate back to the west with the rotation of the Village's other production wells in the final quarter of the year.

TABLE 1
Monthly Influent/Effluent Sampling Results, µg/l

Constituent	Influent July 15	Effluent July 15	Influent August 24	Effluent August 24	Influent August 31	Effluent August 31
1,1,1-Trichloroethane	22.0	0.22 J	20.0	0.31 J	18	0.28
cis-1,2-Dichloroethene	2.2	ND	2.1	0.21 J	1.9	0.22
Tetrachloroethene	13.0	ND	11.0	0.22 J	11	0.21
Trichloroethene	24.0	0.52	23.0	0.70	21	0.70
1,1-Dichloroethane	0.46 J	ND	0.61	ND	0.49	ND

Approximately 32.6 million gallons of water were processed in the third quarter of 2004. Based on these data, total VOCs of approximately 0.19 lb/day in July, 0.18 lb/day in August, and 0.17 lb/day in September were discharged to the atmosphere during this reporting period.

↳ ≈ 6 lbs./month
removed from
gw.

Groundwater Monitoring

Groundwater level measurements were collected on August 6 during the quarterly groundwater sampling event. These data were used to develop potentiometric surface maps and the potentiometric map is included as Figure 1 with this report. Groundwater sampling for the quarterly event was completed on August 4. Table 2 summarizes the detected constituents and their concentrations.

TABLE 2
Quarterly Groundwater Monitoring Results, µg/L

Constituent	GSS- MW6	GSS- MW8	MW-8	GSS- MW9	GSS- MW10	GSS- MW14
1,1-Dichloroethane	ND	ND	4.1	ND	ND	ND
cis-1,2-Dichloroethene	ND	ND	70	ND	ND	ND
trans-1,2-Dichloroethene	ND	ND	7.2	ND	ND	ND

ND – not detected

The concentration of cis-1,2-dichloroethene at MW-8 is equal to the MCL but is not at a historical high. This compound has had a tendency to fluctuate in MW-8 and this is not a rising trend.

Source Area Soils

Source area soils are undergoing treatment at this time utilizing air injection (AI), air sparging (AS) and soil vapor extraction (SVE). The treatment systems have been in operation since September 2000. The average flow rate for the SVE system this quarter was approximately 542 scfm.

A SUMMA canister sample of the SVE system influent was collected August 29. The results are provided in Table 3 below.

TABLE 3
Summa Canister Sampling
Detected Parameters

Compound	Concentration (ppmv)	Concentration ($\mu\text{g}/\text{m}^3$)
Tetrachloroethene	0.200	1356
Trichloroethene	0.160	859.2
1,1,1-Trichloroethane	0.170	928.2
cis-1,2-Dichloroethene	0.020	79.4
Totals	0.550	3222.8

ppmv – parts per million by volume

The total soil gas extracted by the SVE system for the quarter was approximately 50.8 million cubic feet. Approximately 10.2 pounds of VOCs were removed by the SVE this past quarter, and an approximate total of 351 pounds of VOCs have been removed by the SVE system since start-up. Mass removal estimates are based on PID readings and SUMMA canister samples obtained periodically from the SVE influent. The removal rate for the SVE system has remained well below the *de minimis* allowed quantity of 10 pounds per day throughout this quarter.

Active or Completed Tasks

The following specific tasks were completed during the reporting period:

- Collected water samples on July 15, August 24, and August 31, 2004 from the treatment system influent and effluent sampling ports;
- Collected the Quarterly suite of samples from monitoring network on August 4, 2004;
- Collected water level measurements on August 6, 2004 and generated a potentiometric surface based on these measurements;
- Continued to collect airflow data on a monthly basis;
- Collected a SUMMA canister sample of the SVE system influent on August 29, 2004;
- Continued to operate the AI system on a 3 hour on/3 hour off cycle;
- Performed acid washing maintenance of the groundwater treatment system on June 25th;
- Cleaned, by power washing, the discharge pipe from EW-2 into the treatment building;
- Ben Pfefferle (Steering Committee Chairman) and Gerry Myers (M&E) met with the U.S. EPA and the Village of Granville to present the treatment system shutdown strategy for the Site.

II. DELIVERABLES (CURRENT PERIOD AND NEXT PERIOD)

CURRENT PERIOD:

<u>Deliverable</u>	<u>Due Date</u>	<u>Delivered</u>
Third Quarterly Report	October 7, 2004	October 7, 2004

NEXT PERIOD:

<u>Deliverable</u>	<u>Due Date</u>	<u>Delivered</u>
Fourth Quarterly Report	January 7, 2004	

III. DIFFICULTIES ENCOUNTERED REMEDIAL ACTIONS TAKEN THIS PERIOD

- None

IV. ANTICIPATED ACTIVITIES DURING NEXT REPORTING PERIOD

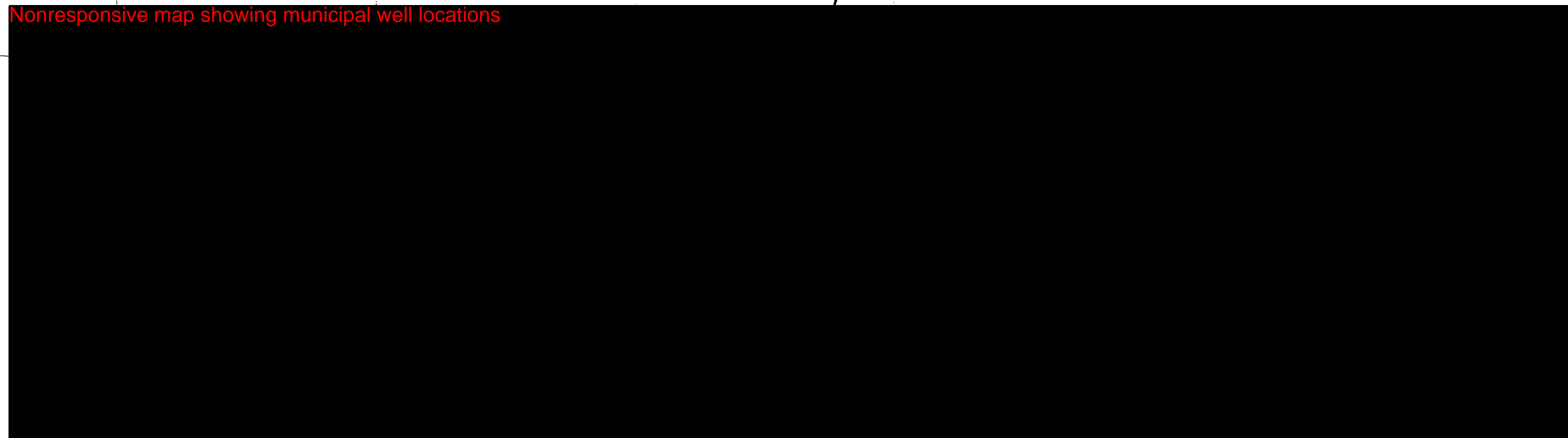
During the next reporting period, M&E will perform the following tasks:

- Collect potentiometric surface data on a quarterly basis;
- Collect a quarterly suite of samples from the groundwater monitoring network in November;
- Sample the treatment system influent and effluent water on a monthly basis;
- Perform scheduled maintenance of the treatment systems;
- Perform scheduled data collection for the treatment systems;
- Collect a SUMMA canister sample of the SVE effluent; and
- Continue system shutdown strategy discussions with U.S. EPA and the Village of Granville.

LEGEND
* NOT USED IN CONTOURING
NM GROUNDWATER LEVEL NOT MEASURED



Nonresponsive map showing municipal well locations



SCALE IN FEET
0 100' 200'



GRANVILLE SOLVENTS SITE
POTENTIOMETRIC SURFACE
AUGUST 6, 2004
GRANVILLE, OHIO

FILE NAME	CHECKED	DRAWN	DATE	PROJECT NO.	FIGURE
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